viliv

Mobile Internet Device

X70 EX

User's Manual



This guide may be changed for product improvement without prior notice.



Thanks for purchasing viliv.

Please read the precautions
throughly before using the product.

viliv

Copyright

Certification

This device has acquired EMC certification for home use (Class B) and is designed not only for use in residential area but anywhere.

Grade B Device
(Broadcast Communication Device for Residential Area)

Registered Trademark

viliv is the registered trademark of Yukyung Technologies Corp.

Windows 2000, Windows XP and Windows CE are the registered trademarks of Microsoft Corporation.

Liability Disclaimer

Infringement of Intellectual Property Rights: Playing, copying or distributing any part or all of any copyrighted contents such as software, music or video with this device may infringe on a third party's legitimate intellectual property rights or violate copyright law. All legal responsibilities for the infringement of copyright or intellectual property rights from the use of this device lie with the user.

Improper Use: The manufacturer of this device is not liable for any damage or improper use and operation by using this device and infringement of copyright and portrait right by user when taking photos In addition, the manufacturer is not liable for bodily injury or property damage that may occur arising from inappropriate use other than operation standards or conditions.

Data Loss: Any audio, video or photo files stored in this device may be deleted due to damage or operational error caused by user's careless handling or unknown failure or when the device undergoes warranty repair. Therefore, the files must be backed up in a separate place. In these cases, the manufacturer is not liable for the loss or damage of data stored in the device.

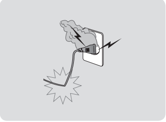
Specification Change: The standards, accessories, embedded software and manual contents of this device may be changed without user's prior consent or prior notice to the user.

Contents

Safety Precautions for Use

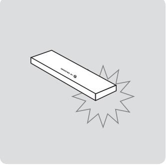
The precautions below are provided to prevent bodily injury or property damage by using this product correctly. Please observe the precautions.

Precautions on Power



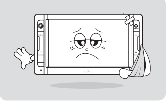
- Do not touch the power adapter with wet hands.
- Plug the power cord into an outlet with grounded jack.
- Be sure the plug goes in all the way and is not loose.
- Do not use your device if it is damaged, including an exposed or peeled power cord.
- If lightning occurs nearby or if you are absent for a long time, unplug the plug from the outlet.

Precautions on Battery



- Do not apply strong impacts or make a hole with a sharp object.
- Do not leave the battery in a hot place such as sauna or bathroom or otherwise heat it.
- Do not let the battery become wet or immersed in liquid.
- Do not allow children or pets to bite or suck the battery.
- Keep the battery charging port away from metals.
- When disposing of the battery, do not burn it or throw it away in domestic trash. Dispose of the battery at the nearest disposal place for batteries after contacting your local water disposal agency.

Precautions for the Device



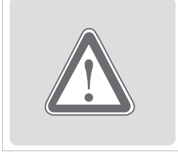
- Avoid exposing to direct sunlight and do not leave in a closed car.
- Do not leave the device in a dusty place or a humid place such as a bathroom.
- Keep the device away from credit cards, bankbooks, or a communication ticket.
- Do not use accessories that are not provided with this device.
- Do not touch the LCD screen with a sharp object.

Precautions in Use



- Do not listen to music at a high volume for a long time.
- Do not watch the video for too long a time.
- Do not use headphones/earphones while driving, walking or using public transport.
- Do not apply strong impacts on the LCD.
- If the device begins to smoke or become deformed by heating, stop using it immediately and contact your nearest Customer Service.
- Do not use the device in a hospital, on board a plane or while driving.
- Do not directly put and use the device frame or the power adapter on your bare skin for a long time. The temperature of the station may rise even during normal operation. If you continue to use the device on your bare skin (in particular, when the adapter is connected), you may feel uncomfortable or receive a burn.

Other Precautions



- If the device is wet, do NOT turn on the power. Separate the battery and wipe it with a soft dry cloth. After that, contact Customer Service.
- When cleaning the device, wipe it with a soft dry cloth and do NOT use chemicals, such as benzene or thinner.
- Do not repair, disassemble or alter in any manner.
- Do not allow any liquid or foreign materials to get inside the device.
- Do not drop the device.

Safety Precautions for Use

⚠ Warning | Please observe the instructions below. Failure to do may cause heating, fire, explosion, etc.

- If the battery can be seen to be swollen, there may be imminent danger. Immediately contact the manufac-turer or sales representative.
- Only use an eligible specified charger.
- Keep the device away from open flames. (Do not put it in a microwave.)
- Do not leave the device in a car in summer.
- Do not store or use the device in a hot and wet place like a bathroom.
- Do not put the device on bedclothes, electric mattress or carpet and use it for a long time.
- Do not store the device powered on in a closed space.
- Do not allow metal products, such as a necklace, coil, key or watch, to touch the battery port.
- Use a lithium secondary battery guaranteed by a portable device manufacturer.
- Do not disassemble or pierce the device and do not apply excessive strength.
- Do not apply excessive impact like dropping the device from a high place.
- Do not expose the device to high temperatures of 60°C or higher.
- Avoid humidity.

Caution

Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Compliance Information

This device complies with Part 15 of FCC Rules.
Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received.
Including interference that may cause undesired operation.

Information to User

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ tv technician for help.

FCC RF Exposure Information

In August 1996 the Federal Communications Commission(FCC) of the United States with its action in Report and order 96-326 adopted an updated safety standard for human exposure the ra-dio frequency electromagnetic energy emitted by FCC regulated transmitters. Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of 'X70 EX' complies with the FCC guidelines and those international standards. Use only the supplied or an approved antenna. Unauthorized antennas, modifications, or attachments could impair call quality, damage your 'X70 EX', or result in violation of FCC regulations.

'X70 EX' was tested for typical body-wom operation using the optional belt-clip / holster placed touch(0cm) from the body. The use of non-tested accessories or other body-wom operations may not comply with FCC exposure requirements and should be avoided.

Safety Precautions for Use

The device functions vary depending on model.
Read the relevant precautions for the provided function before using the device.

Precautions for GPS

- When initially operating this device, it is recommended you warm it up for over 15 minutes under a clear open sky and open area.
- If the vehicle equipped with this device is not used for 7 days or longer, the data storage recharger inside the GPS may be discharged and require warming up time of over 15 minutes.
- GPS signals are high frequencies around 1575 MHz so they may be affected by bad weather, such as rain and fog, and electromagnetic interference and the reception rate of the GPS may deteriorate.
- When the GPS receiver is under an elevated road, inside a tunnel, in a densely built-up area or near a high-voltage line, it is difficult to receive radio waves so GPS reception may fail.
- The GPS receiver may not work normally in some vehicles with UV coating, sun-block coating or electromagnetic interference.
- The operational temperature of the GPS receiver is between 0°C and 50°C. Problems may occur in midsummer or severe winter so maintain an appropriate temperature.
- On some roads running parallel to a driveway or an elevated road, the information on speed limits or dangerous sections for speeding may not be accurate.

Precautions for the Bluetooth

- Do not attempt to operate the Bluetooth while driving. Accidents caused by such improper handling are the sole responsibility of driver.
- To prevent electromagnetic problems or other dangers, turn off the Bluetooth setting wherever the use of Bluetooth is inhibited.
- If you use a certain medical device, such as a pacemaker or a hearing aid, ask the manufacturer of the relevant device if it is correctly cut off from energy sources before using it. If necessary, you may ask for some assistance from your regular doctor.
- This device satisfies Bluetooth standards 2.0. Some Bluetooth devices may not be fully compatible with this device. For detailed information on compatibility, contact the manufacturer of the relevant device or our Customer Service.
- This wireless equipment may experience electromagnetic interference, so it is not permitted for use by a life-saving service.

Precautions for Navigation



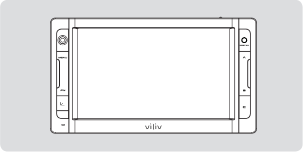
- Placing the device where it blocks the driver's view or is within the driver's operation range for driving may cause an accident. Adjust the volume to an appropriate level so that it does not disturb while driving.
- Fix the device rack onto the windshield securely so that it will not fall or move while driving.
- If the rack is attached onto the windshield for a long time, its adhesion may become weak and it may fall. Therefore, if you are not going to use the device for a long time, separate it and keep in a safe place.
- Do not disassemble and attach it inside a vehicle in any manner. To do so may affect the electrical system and GPS reception sensitivity and lead to a fire.
- Do not separate the cigar jack from the vehicle while using the device. To do so may cause a malfunction.
- Set the device up where it does not block the driver's view or is not in the way of the airbag's operation.

WiFi and 3G Modem (or HSDPA, HSUPA) do not operate simultaneously.

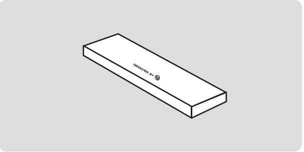
Names of Parts

The appearance of the components below may differ from the actual components and some components are subject to change.

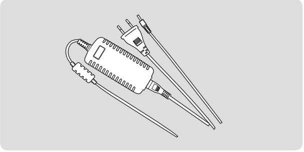
Basic Components



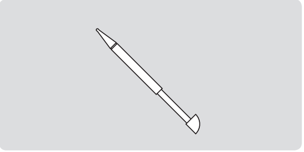
Main Body



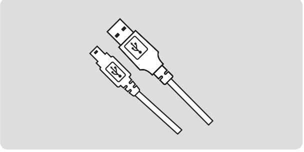
Standard Removable Battery



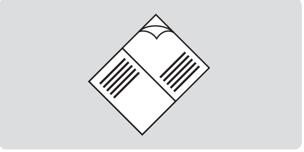
AC/DC Power Adapter



Stylus Pen
(embedded in the main body)



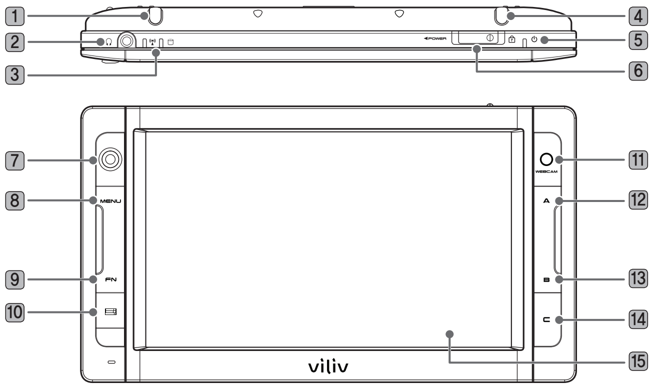
USB Cable



User's Manual

Names of Parts

Top/Front View



1 **Stylus Pen** Stores a stylus pen.

2 **Earphones Port** Connects earphones.

3 **Operation Indicator**
WLAN Indicates the status of the WLAN equipment operation.
HDD Indicator Turns on when accessing the HDD.

4 **3G Modem** Built-in antenna. (Optional)

5 **Power Status Indicator** Indicates the status of power connection.

6 **Power/Hold Switch** Provides Power On/Off and key input locking functions.

7 **Jog Dial** It is used to move in Up↑/Down↓/Left←/Right→ direction on screen.

8 **Menu Button** Moves to main menu.

9 **FN** **BIOS Mode** F8 (Advance Win XP Mode)
Win XP Mode F10

10 **Virtual Keyboard** Activates viliv virtual keyboard.

11 **WEBCAM** Equipped with a web camera.

12 **A** **BIOS Mode** ESC
Win XP Mode OK (Left mouse button)

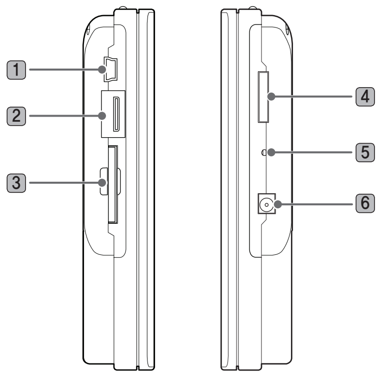
13 **B** **BIOS Mode** F11 (Popup board)
Win XP Mode Right mouse button

14 **C** **BIOS Mode** F10 (Recovery)
Win XP Mode User-defined mode

15 **TFT LCD/Touch Screen** The user can operate the device on the touch screen.

Names of Parts

Left/Right View



1 **USB Data Link** It is used to connect a terminal computer.

2 **USB Port** It is used to connect another external device with a USB cable.

3 **SD Card Slot** It is used to insert an SD/SDHC card.

4 **Multi I/O Port** It is used with external video out (Component, composite and S-Video) and to connect an extension I/O pack.

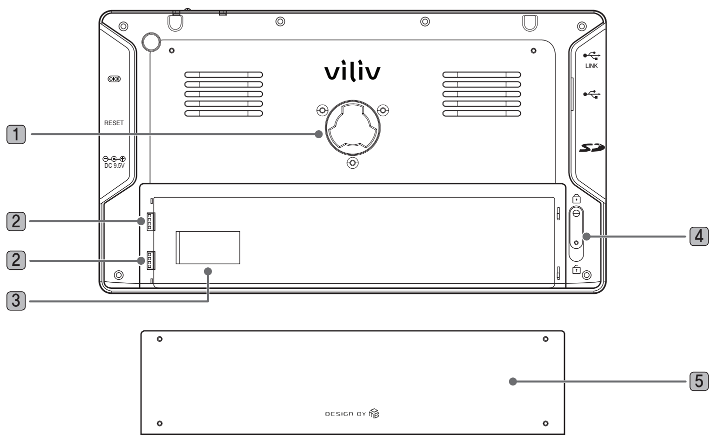
5 **RESET** If you press this button with a pointed object, the device restarts.

6 **Power Adapter Port** It is used to charge a battery or connect a power adapter for the use of the device.

Names of Parts

Rear View

The figure below shows the rear side of the main body without the battery. (Refer to Page 13 for Separating/Attaching battery.)



1 **Rack Connection** It is used to connect a device rack.

2 **Battery Charging Port** Connection part of battery terminal.

3 **Connection Part of Battery Terminal** Mounting slot for USIM card (Refer to Page 14 for inserting/extracting an USIM card.)

4 **Separating/Attaching Battery** Push the battery downward to separate the battery, as shown in the figure above.

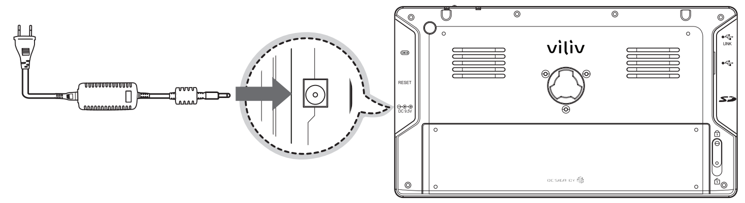
5 **Battery**

Installation and Cable Connection

The connections of external devices may vary in accordance with products.

Power Connection (Charging Adaptor)

The charger is connected to the power adapter terminal on the left side of the station.



Notice

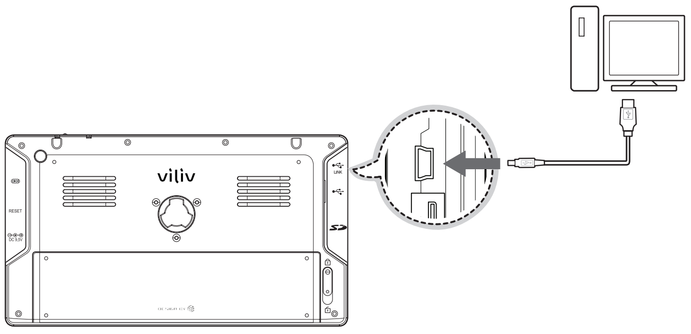
Power Status Indicator: Power Off / Standby Mode / Max. Power Saving Mode
☞ While charging: Red / Fully charged: Blue off
Power On Mode
☞ While charging: Red / Fully charged: Blue

Installation and Cable Connection

The connections of external devices may vary in accordance with products.

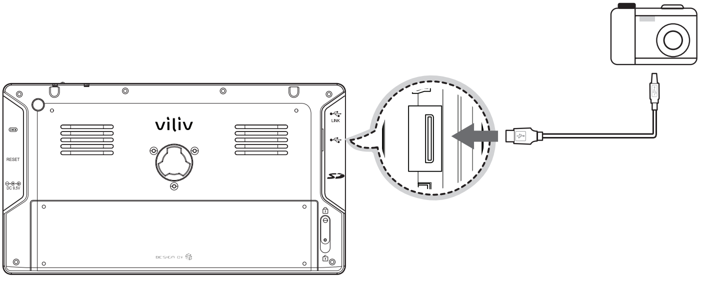
USB Data Link Connection

A USB cable is connected to the USB Data Link port on the right side of the station.



USB Connection

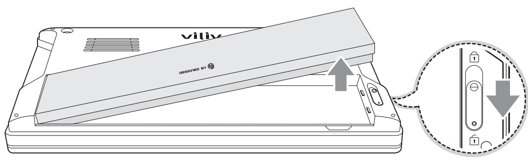
This is used for the connection of external devices, such as digital camera, external HDD, etc.



Separating · Attaching Battery

Separating Battery

Depress the Battery Separation/Lock button on the rear of the station in direction as shown in the figure. Slightly push the battery up in the battery separation groove and then separate the battery.

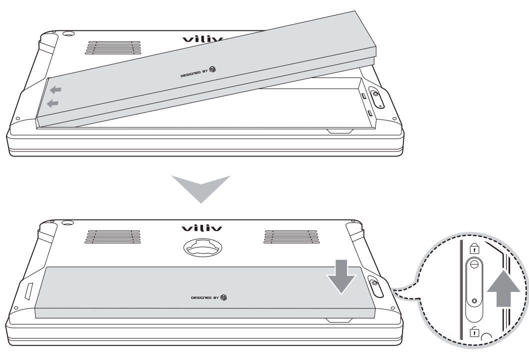


Notice

Separate the charger after turning the power of the station off.
If not, you may receive an electric shock by a short circuit in the battery power part.

Attaching Battery

Align the battery in the groove as shown in the figure below and then press it until it is closely attached to the main body. Push up the Battery Separation/Lock button on the rear of the station in direction as shown in the figure below.



Notice

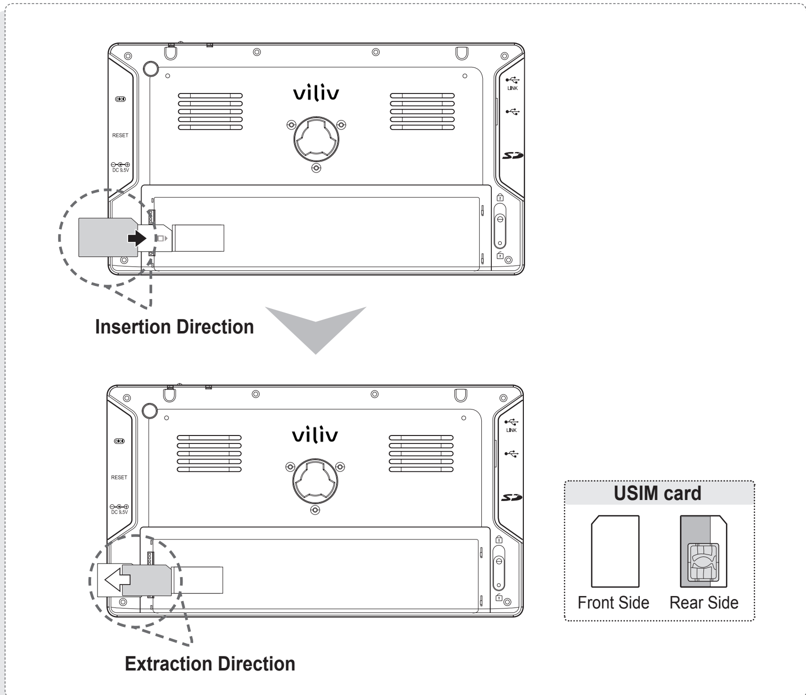
If the battery is misaligned with the groove and you attempt to mount the battery, the device may be damaged.

Separating · Attaching Battery

Inserting · Extracting USIM Card

How to Insert ⬆ : Let the front of a USIM card face the USIM card slot and then push it in the arrow direction until a click sound is heard. (If, however, you push the USIM card using too much force, the card may be damaged.)

How to Extract ⇩ : Since this device adopts a one-touch method, you may gently press on the end of the USIM card to extract it automatically. (Pull out the USIM card slightly protruded.)



Notice

- Please, turn the power of the station off before inserting or extracting the USIM card.

Basic Operation

Turning the Power On/Off



Turning the Power On

To turn the power on, move the Power button on the top of the station to the left.

▷ The LCD screen turns on and the main screen is displayed.



Turning the Power Off

If Windows OS is running, turn the power off with the Turn the Power menu on the Start menu.
If the system is stopped during the operation, move the Power button on the right side to the left side and hold the button for over 4 seconds to turn the power off.

▷ Since the file that your are working on is closed without saving, it is better not to use this function.

▷ If you turn the power off with the button, this function is performed in accordance with the power option specified in Windows OS.

Setting/Cancelling Hold Function



Hold Setting

Move the Hold button on the top of the station to the **right**.

▷ Once the lock function is set, the screen touch function and all of the button functions are not available.



Cancelling the Hold Mode

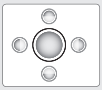
Move the Hold button on the top of the station to the **left**.

▷ Once the lock function is set, the screen touch function and all of the button functions are not available.

Basic Operation

Jog and Function Buttons

The Jog key has different functions in accordance with the program functions.

Key	Function
	**Up↑/Down↓/Left←/Right→ Move (◎/◎/◎/◎)** This is the button to move in Up↑/Down↓/Left←/Right→ direction on screen.
	**Selection (Center Key of the Direction Keys)** Enter button
MENU	**MENU** It is used to move to the main menu.
MENU + A / B / C	**MENU + A** Brightness adjustment (Up) **MENU + B** Brightness adjustment (Up) **MENU + C** Windows + U
FN	**FN** BIOS Mode-F8 (Advanced Win XP Mode) / Win XP Mode-F10
FN + A / B	**FN + A** Volume adjustment (Up) **FN + B** Volume adjustment (Down)
	**Virtual Keyboard** Virtual keyboard is activated.
	**ICON** BIOS Mode-DEL (Install) / Win XP Mode-Windows+H (Soft Keyboard)
A	**A** BIOS Mode-ESC / Win XP Mode-OK (Left Mouse Button)
B	**B** BIOS Mode-F11 (Popup Board) / Win XP Mode-Right Mouse Button
C	**C** BIOS Mode-F11 (Popup Board) / Win XP Mode-Right Mouse Button
C + JOG key	**Pivot** Pivot Function

Running Virtual Keyboard



Running the Virtual Keyboard

Press the vilivSoftKeyboad icon on the screen. (You maypress the [keyboard button] of the device to run the virtual keyboard.)

Hiding the Virtual Keyboard

If you press the Hide icon on the virtual keyboard, the keyboard is converted into the [icon] icon.

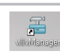
▷ To return to the original status, press the [icon] icon again.

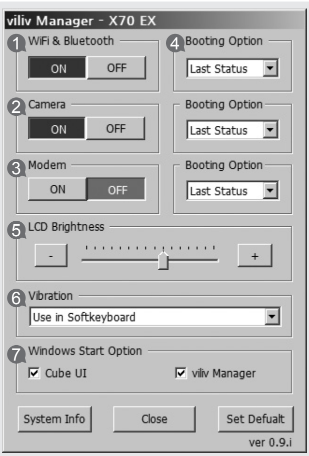
Exiting the Virtual Keyboard.

Press the Virtual Keyboard button on the device to exit the Virtual Keyboard.

Set Up for villv Manager

viliv Manager is executed by double touching vilivManager on the screen.

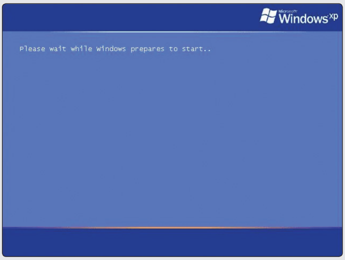




1	**Wireless LAN Power** Turn on/off self-powered wireless LAN function.
2	**Camera Power** Turn on/off self-powered Camera function.
3	**Modem Power** Turn on/off self-powered Modem function.
4	**Windows Booting Option** 1. OFF: Always start with OFF status. 2. Last Status: Start with the last status. 3. ON: Always start with ON status.
5	**Brightness of LCD** Adjust by status bar or -, + button.
6	**Setting Vibration** 1. No Use: Do not use vibration function. 2. When using soft keyboard: Operate only if soft keyboard is used. 3. Always Use: Operates when operating for all touches.
7	**Set Up for Windows Start Program** 1. Set whether or not to execute Cube UI automatically. 2. Set whether or not to execute viliv Manager automatically.

Using for the First Time

For each Windows installation process, the installation time may vary depending on the process. Please wait until the installation is complete.



1. Along with the start of Microsoft Windows XP Home, the preparation screen for starting Windows appears as in the following figure.



2. The Windows start screen for setting up computer appears.

   Click **next** to continue.

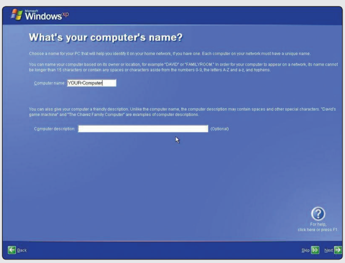


3. The agreement for end user's right of use appears on the screen. Read it carefully, and select **"Yes, I agree. (Y)"** if you agree, and then click **next.**

Using for the First Time

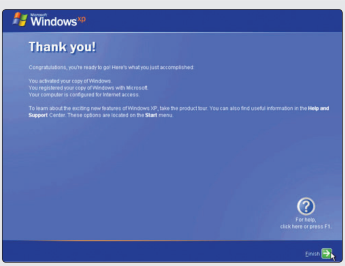


4 The screen related to automatic update appears. After the selection, click **next**.



It may take a couple of minutes.
Please wait for a moment.

5 The screen to assign the computer name appears. To do this, an external keyboard is needed. If you don't have an external keyboard, you can click **next** to assign the computer name, or you can open the video keyboard on Microsoft Utility Manager by pressing the menu button of the product and the user registration button of C + MENU shape on the lower-left corner simultaneously to enter the computer name. Microsoft video keyboard may not support the input of Korean letters.
If you want to assign the computer name later, you can assign in computer control **panel → system registration information → computer name.**



6 The screen asking "Do you want to register on the internet?" appears. After selecting **Yes** or **No**, click **next**.

7 The screen showing completion of the installation process appears. Click **next**.

8 The installation of Microsoft Windows XP Home is complete. Please wait for a moment. The screen for Windows wallpaper will appear shortly.

Recovery Solution (AMI Rescue) Guide

As an image-based OS recovery solution, it recovers to the initial status of shipment from factory when HDD of user cannot be booted from OS or it has problems.

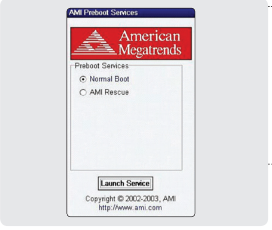
Way to Use Recovery Solution (AMI Rescue)



1 Execution of Recovery Solution (AMI Rescue)

If viliv logo appears when booting the system (BIOS POST), press the C key 1-2 times or F10 key if external keyboard is connected.

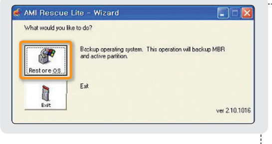
▷ As the logo disappears, Pre-Boot Menu window appears.



2 Pre-Boot Menu

When selecting Normal Boot, booting proceeds to Windows. For recovering OS, select AMI Rescue and click Launch Service.

▷ AMI Rescue Lite-Wizard appears.



3 AMI Rescue Lite-Wizard

When clicking **Restore OS** button, a message that confirms the recovery of OS is displayed. If you press **Yes (Y)**, it starts the recovery of OS.

If the process of OS recovery is completed, a message that confirms the successful recovery is displayed. (Partition 0 on disk 0 was successfully restored.)

If you press **OK** button, the system is booted again automatically.

▷ Now, if you boot to Windows, OS will be in the initial status of shipment from factory.

Notice

- When recovering OS, recover by connecting battery adaptor.
- Since data is deleted in case of recovery, make sure to back up the data beforehand.
- Please wait for 20 sec when black screen is showing to prepare boot up the Windows VISTA.
- It will take a time more for Windows VISTA Users.

Specifications

The specifications below may be changed for enhancement of product performance without prior notice.

General Specifications

Product Name	X70 EX
CPU & Chipset	Intel® Atom™ 1.2 (Z515) / 1.33 (Z520) GHz + SCH US15W
LCD	7-type WSVGA (1024 x 600) / Touch panel
RAM	1GB
Storage	SSD 16GB / 32GB / 64GB / 128GB
WWAN (Optional)	WiMAX; HSDPA
LAN	IEEE 802.11b/g
Bluetooth	Bluetooth Ver2.0 + EDR
GPS (Optional)	SiRF Star Ⅲ
Connector	Audio x1, USB x1, USB (Link) x1, Multi I/O x1, SD/SDHC Slot x1
Audio	Stereo speakers
Battery	Lithium Polymer (Removable) Voltage: 7.4V Capacity: 4,100mAh
Dimension	210 (W) x 117 (H) x 22.5 (T) mm
Camera	1.3Mega pixel
OS	Windows XP Home Edition
Operation Temperature	0°C ~ 40°C

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